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EXAMINER DITRANI, ANGELA M				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/598,559

**Applicant(s)**

FREYER, RUNE

**Examiner**

Angela M. DiTrani

**Art Unit**

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/88)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 13 recites the limitation "but leaving at least one space containing the fluid in the annulus." This limitation is indefinite insofar as because such a limitation is not an actual step that is being taken within the method, but, rather, is presenting the problem that Applicant is trying to fix by employing the claimed method. Deletion of this limitation is advised. Claims 14-20, dependent upon claim 13, are hereby rejected under 35 USC 112, second paragraph as well.

Claims 17 and 18 each are further rejected under 35 USC 112 insofar as because both claim 17 and claim 18 present the problem that Applicant is trying to fix by using the method disclosed rather than presenting actual steps that are taken to address the problem.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 7-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kollsman (US 3,385,367).

With respect to independent claim 1, Kollsman discloses a well system, comprising: a device which expands into a space in a borehole, the space being at least partly defined by a castable material disposed radially between the borehole and the device, wherein the device comprises an annular element disposed on a tubular structure in the borehole and including an expandable material capable of extending from a retracted state to an expanded state (see entire disclosure, esp. with reference to Fig. 2-12, 14 and 15).

With respect to depending claims 2 and 3, the reference teaches the system wherein the space is at least partly defined by a wall of the borehole; and the system wherein the space is at least partly defined by the tubular structure (see ref. to Fig. 14 and 15).

With respect to depending claim 4, the reference teaches wherein the space at least partly holds a fluid (col. 2, l. 46 - col. 3, l. 8; col. 4, l. 57-75).

With respect to depending claim 5, the reference teaches the system wherein the annular element is adapted to extend from the retracted state to the expanded state as a reaction to exposure to a fluid in the space (col. 2, l. 46- col. 3, l. 8; col. 4, l. 57-75).

With respect to depending claim 7, the reference teaches wherein the space comprises an elongated channel substantially defined by the castable material, the tubular structure and the borehole wall (see ref. to Fig. 14 and 15).

With respect to independent claim 8, Kollsman discloses a method of sealing a space in a borehole, the space being at least partly defined by a castable material disposed in the borehole, the method comprising the steps of disposing on a tubular structure at least one annular element comprising an expandable material capable of extending from a retracted state to an expanded state; extending the tubular structure into the borehole; providing the castable material into a volume defined by a wall of the borehole and an outer surface of the tubular structure, the castable material extending at least partially circumferentially about the annular element; and extending the expandable material into the space (see entire disclosure, esp. with reference to Fig. 2-12, 14 and 15).

With respect to depending claim 9, the reference teaches wherein the disposing step further comprises disposing a plurality of the annular elements at spaced intervals along a length of the tubular structure (see ref. to Fig. 14 and 15).

With respect to depending claim 10, the reference teaches wherein the expandable material is adapted to extend from the retracted state to the expanded state as a reaction to exposure to a fluid in the space (col. 2, l. 46- col. 3, l. 8; col. 4, l. 57-75).

With respect to depending claim 11, the reference teaches wherein the expandable material extends into the space after the castable material has hardened (col. 5, l. 44- col. 6, l. 19).

With respect to depending claim 12, the reference teaches wherein the space comprises an elongated channel substantially defined by the castable material, the tubular structure and the borehole wall (see ref. to Fig. 14 and 15).

With respect to independent claim 13, Kollsman discloses a method of sealing an annulus in a borehole, the method comprising the steps of: positioning an expandable material on a tubular structure; installing the tubular structure in the borehole, the annulus being formed between the tubular structure and the borehole; flowing a castable material into the annulus, the castable material partially displacing a fluid in the annulus, and the castable material being disposed radially between the expandable material and the borehole, but leaving at least one space containing the fluid in the annulus; and expanding the expandable material into the space (see entire disclosure, esp. with reference to Fig. 2-12, 14 and 15).

With respect to depending claim 14, the reference teaches wherein the positioning step further comprises positioning a plurality of sleeves on the tubular structure, each of the sleeves including the expandable material (see ref. to Fig. 14 and 15).

With respect to depending claim 15, the reference teaches wherein the expanding step is performed in response to contact between the expandable material and the fluid (col. 2, l. 46- col. 3, l. 8; col. 4, l. 57-75).

With respect to depending claim 16, the reference teaches wherein the expanding step is performed at least partially after the castable material has hardened in the annulus (col. 5, l. 44- col. 6, l. 19).

With respect to depending claims 17 and 18, the reference teaches wherein the flowing step further comprises leaving the space so that the space is bounded at least partially by the castable material and wherein the flowing step further comprises leaving the space so that the space is bounded at least partially by the borehole.

With respect to depending claim 19, the reference teaches wherein the positioning step the expandable material comprises a swellable material (col. 2, l. 46- col. 3, l. 8; col. 4, l. 57-75).

With respect to depending claim 20, the reference teaches wherein the flowing step further comprises contacting a portion of the expandable material with the castable material, and contacting another portion of the expandable material with the fluid in the space (col. 2, l. 46- col. 3, l. 8; col. 4, l. 57-75).

5. Claims 1-4, 7-9, 11-14, 16-18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Wylie et al. (US 7,066,284).

With respect to independent claim 1, Wylie et al. discloses a well system, comprising: a device which expands into a space in a borehole, the space being at least partly defined by a castable material disposed radially between the borehole and the device, wherein the device comprises an annular element disposed on a tubular structure in the borehole and including an expandable material capable of extending from a retracted state to an expanded state (see entire disclosure, esp. col. 16, l. 28-33; col. 19, l. 40-col. 22, l. 6).

With respect to depending claims 2 and 3, the reference teaches the system wherein the space is at least partly defined by a wall of the borehole; and the system

wherein the space is at least partly defined by the tubular structure (see entire disclosure, esp. col. 16, l. 28-33; col. 19, l. 40-col. 22, l. 6).

With respect to depending claim 4, the reference teaches wherein the space at least partly holds a fluid (see abstract).

With respect to depending claim 7, the reference teaches wherein the space comprises an elongated channel substantially defined by the castable material, the tubular structure and the borehole wall (see abstract).

With respect to independent claim 8, Wylie et al. discloses a method of sealing a space in a borehole, the space being at least partly defined by a castable material disposed in the borehole, the method comprising the steps of disposing on a tubular structure at least one annular element comprising an expandable material capable of extending from a retracted state to an expanded state; extending the tubular structure into the borehole; providing the castable material into a volume defined by a wall of the borehole and an outer surface of the tubular structure, the castable material extending at least partially circumferentially about the annular element; and extending the expandable material into the space (see entire disclosure, esp. col. 16, l. 28-33; col. 19, l. 40-col. 22, l. 6)

With respect to depending claim 9, the reference teaches wherein the disposing step further comprises disposing a plurality of the annular elements at spaced intervals along a length of the tubular structure (col. 24, l. 45-51).

With respect to depending claim 11, the reference teaches wherein the expandable material extends into the space after the castable material has hardened (col. 21, l. 49-63).

With respect to depending claim 12, the reference teaches wherein the space comprises an elongated channel substantially defined by the castable material, the tubular structure and the borehole wall (see abstract).

With respect to independent claim 13, Kollsman discloses a method of sealing an annulus in a borehole, the method comprising the steps of: positioning an expandable material on a tubular structure; installing the tubular structure in the borehole, the annulus being formed between the tubular structure and the borehole; flowing a castable material into the annulus, the castable material partially displacing a fluid in the annulus, and the castable material being disposed radially between the expandable material and the borehole, but leaving at least one space containing the fluid in the annulus; and expanding the expandable material into the space (see entire disclosure, esp. col. 16, l. 28-33; col. 19, l. 40-col. 22, l. 6).

With respect to depending claim 14, the reference teaches wherein the positioning step further comprises positioning a plurality of sleeves on the tubular structure, each of the sleeves including the expandable material (col. 24, l. 45-51).

With respect to depending claim 16, the reference teaches wherein the expanding step is performed at least partially after the castable material has hardened in the annulus (col. 21, l. 49-63).

With respect to depending claims 17 and 18, the reference teaches wherein the flowing step further comprises leaving the space so that the space is bounded at least partially by the castable material and wherein the flowing step further comprises leaving the space so that the space is bounded at least partially by the borehole (abstract).

With respect to depending claim 20, the reference teaches wherein the flowing step further comprises contacting a portion of the expandable material with the castable material, and contacting another portion of the expandable material with the fluid in the space (abstract).

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kollsman as applied to claim 1 above, and further in view of Raines (US 6,102,119 – cited in previous action).

With respect to claim 6, Kollsman et al. discloses the device as claimed in claim 1, wherein the borehole is drilled, subsequent to which the casing is installed by conventional cementing methods. The reference, however, fails to explicitly teach wherein the conventional cementing method comprises employing a casting material of concrete. Raines discloses a method for installing a tubular element in a wellbore, wherein, subsequent to drilling the wellbore, a filler material of cement or concrete is employed in a fluid state for the purpose of subsequently being placed so as to surround the tubular element and, thereafter, curing, to hold the tubular element in its

position therein (col. 5, line 25 – col. 6, line 37). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ concrete as a casting material within the cementing method of Kollsman et al. in order yield the predictable result of stabilizing the tubular element therein.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wylie et al. as applied to claim 1 above, and further in view of Raines (US 6,102,119 – cited in previous action).

With respect to claim 6, Wylie et al. discloses the device as claimed in claim 1, wherein the borehole is drilled, subsequent to which the casing is installed by conventional cementing methods. The reference, however, fails to explicitly teach wherein the conventional cementing method comprises employing a casting material of concrete. Raines discloses a method for installing a tubular element in a wellbore, wherein, subsequent to drilling the wellbore, a filler material of cement or concrete is employed in a fluid state for the purpose of subsequently being placed so as to surround the tubular element and, thereafter, curing, to hold the tubular element in its position therein (col. 5, line 25 – col. 6, line 37). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ concrete as a casting material within the cementing method of Wylie et al. in order yield the predictable result of stabilizing the tubular element therein.

***Response to Arguments***

9. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection in light of Applicant's amendments to the claims.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. DiTrani whose telephone number is (571)272-2182. The examiner can normally be reached on M-F, 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Gay can be reached on (571)272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3676

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AD

10/20/08

/Zakiya W. Bates/

Primary Examiner, Art Unit 3676